

Human ALPPL2 Protein; His Tag

Product Information

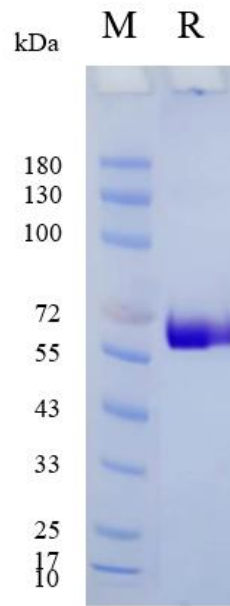
Product Name	Human ALPPL2 Protein; His Tag
Storage temp.	Store at $\leq -70^{\circ}\text{C}$, stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
Catalog# / Size	GM-84414RP-100 / 100 μg GM-84414RP-1000 / 1 mg

Protein Information

Alternative Names	ALPG,GCAP,ALP-1,ALPPL2,PLAP-like,ALPPL,Alkaline phosphatase
Source	Human ALPPL2 Protein; His Tag (GM-84414RP) is expressed from human 293 cells (HEK-293). It contains AA Ile20- Asp503 (Accession # P10696-1). This protein carries a His tag at the C-terminus.
Purity	> 95% as determined by SDS-PAGE
Endotoxin	< 1 EU/ μg , determined by LAL gel clotting assay
Predicted Mol Mass	54.1 KDa
Formulation	Supplied as a 0.2 μm filtered solution of PBS, pH7.4.
Description	ALPPL2 is a member of the alkaline phosphatase (ALP) family. It is an enzyme protein that participates in intracellular phosphatase activity and plays an important role in cell signaling and metabolic processes. ALPPL2 is mainly expressed in human placental tissue and certain tumor cells. Its role in placental tissue includes the transfer of maternal immunoglobulin G (IgG) to the fetus, promotion of DNA synthesis and fibroblast cell proliferation in the presence of insulin, zinc ions, and calcium ions, as well as the synthesis of a tissue called syncytiotrophoblast cells, responsible for the transfer of nutrients and oxygen within the cell. Additionally, ALPPL2 may also serve as a marker for various cancers. The ALPPL2 gene is located on chromosome 2 and shares 87% similarity with the IAP gene. ALPPL2 is a polymorphic enzyme with up to 18 allelozymes originating from point mutations. Due to its low catalytic activity in the neutral pH of the placenta, it is considered to be inefficient. The structure of ALPPL2 includes two disulfide bonds, one stabilizing its orientation near the anchor of glycosylphosphatidylinositol (GPI) at Asp481, and the other reinforcing the anchor of the carbohydrate chain near the first part of glycosylation. Overall, ALPPL2 plays an important role within the cell, particularly in the physiological and pathological processes of placental tissue and cancer.

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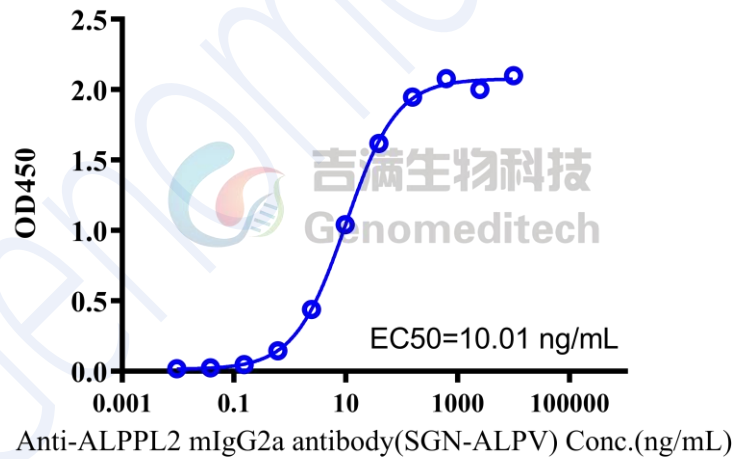
SDS-PAGE



On SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA

Human ALPPL2 Protein; His Tag ELISA 0.1 μg Human ALPPL2 Protein; His Tag of per well



Human ALPPL2 Protein; His Tag (Catalog # GM-84414RP) was immobilized at 1 $\mu\text{g}/\text{ml}$ (100 $\mu\text{L}/\text{well}$). Increasing concentrations of Anti-ALPPL2 mIgG2a antibody (SGN-ALPV) (Catalog # GM-58773AB) were added.